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NEW YORK, NY 10036

EXAMINER

RAMIREZ, DELIA M

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Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/418,176

Applicant(s)

DAS, GOUTAM

Examiner

Delia M. Ramirez

Art Unit

1652

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on 25 September 2002.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☐ Claim(s) 1-12, 14 and 15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12, 14 and 15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)                      4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)                      5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_                      6) ☒ Other: alignments.

**DETAILED ACTION**

***Status of the Application***

Claims 1-12, 14 and 15 are pending.

It is noted that the examination of the instant application has been assigned to a different Examiner in Group Art Unit 1652.

The request filed on 9/25/2002 for a Continued Prosecution Application (CPA) under 37 CFR 1.53(d) based on parent Application No. 09/418,176 is acceptable and a CPA has been established. An action on the CPA follows.

It is noted that no amendment to the claims or arguments in response to the Advisory Action in Paper No. 9, mailed on 3/7/2002 were filed with the request for a CPA. Claims 11-12 have been examined as originally filed and claims 1-10, 14 and 15 as amended in Paper No. 6, filed on 6/15/2001.

Rejections and/or objections not reiterated from previous office actions are hereby withdrawn.

***Priority***

1. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. 119(a)-(d) to INDIA 351/MAS/95, filed on 03/23/1995, SWEDEN 9501939-4, filed on 06/24/1995, and PCT/SE96/00318, filed on 03/12/1996.
2. Acknowledgment is made of a claim for domestic priority under 35 U.S.C. 120 or 121 to US application No. 08/624,398 filed on 04/04/1996.

***Claim Objections***

3. Claim 4 is objected to because of the following informalities: for clarity it is suggested that the term "a polypeptide with human BSSL activity, in which at least one of the repeat units of 11 amino acids, said repeat..." be replaced with "a polypeptide with human BSSL activity in which at least one of the repeat units of 11 amino acids comprised by said polypeptide is deleted, and wherein the repeat unit is indicated in SEQ ID NO: 1. Appropriate correction is required.

***Claim Rejections - 35 USC § 112, Second Paragraph***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-12, 14-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

6. Claim 1 (claims 2-12, 14 and 15 dependent thereon) are indefinite in the recitation of "coding region, joined to the 5' end of said polypeptide coding region, coding for a signal peptide...." as it unclear and confusing. As written, it is unclear which coding region is being referred to by the term "said". It is suggested that if the intended meaning of the term is "a DNA molecule comprising (a)..., (b) a region coding for a signal peptide next to the 5' end of (a), wherein the signal peptide is capable of directing secretion of the human BSSL polypeptide from *Pichia pastoris*; and (c) the methanol oxidase promoter of *Pichia pastoris* operably linked to the regions of (a) and (b)", the claim be amended accordingly. For examination purposes, the interpretation above has been assumed. Correction is required.

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***Claim Rejections - 35 USC § 112, First Paragraph***

7. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

8. Claims 9 and 15 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The invention appears to employ novel vectors. Since the vectors are essential to the claimed invention, they must be obtainable by a repeatable method set forth in the specification or otherwise be readily available to the public. The vector sequences are not fully disclosed, nor have all the sequences required for their construction been shown to be publicly known and freely available. Accordingly, it is deemed that a deposit of these plasmids should have been made in accordance with 37 CFR 1.801-1.809. The enablement requirements of 35 U.S.C. § 112 may be satisfied by a deposit of the plasmids.

It is noted that there is no indication in the specification as to a deposit made or public availability of such deposit. If the deposit was made under the terms of the Budapest Treaty, then an affidavit or declaration by applicants, or a statement by an attorney of record over his or her signature and registration number, stating that the specific vector/strain has been deposited under the Budapest Treaty and that the strain will be irrevocably and without restriction or condition released to the public upon the issuance of the patent, would satisfy the deposit requirement made herein.

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If the deposit has not been made under the Budapest treaty, then in order to certify that the deposit meets the criteria set forth in 37 CFR 1.801-1.809, applicants may provide assurance or compliance by an affidavit or declaration, or by a statement by an attorney of record over his or her signature and registration number, showing that:

a. during the pendency of this application , access to the invention will be afforded to the Commissioner upon request;

b. all restrictions upon availability to the public will be irrevocably removed upon granting of the patent;

c. the deposit will be maintained in a public repository for a period of 30 years or 5 years after the last request or for the effective life of the patent, whichever is longer; and

d. the deposit will be replaced if it should ever become non-viable.

### ***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later

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invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

11. Claims 1-2, 4-8, 10-12, 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tang et al. (U.S. Patent No. 5,200,183, 1993; cited in previous Office Actions) in view of Yamada et al. (Biochimica et Biophysica Acta 1206: 279-285, 1994). Tang et al. discloses a human human bile salt-stimulated lipase (BSSL) polypeptide which is 100% sequence identical to that of SEQ ID NO: 3 and its corresponding polynucleotide. The polypeptide of Tang et al. is also 97.5% sequence homologous to the polypeptide of SEQ ID NO: 4. See attached alignments. Tang et al. also discloses a signal peptide which is identical to that shown as amino acids -20 to -1 of SEQ ID NO: 2 (see attached alignment; column 2, lines 13-15; Figure 2a). Furthermore, Tang et al. teaches that human BSSL contains a region of 16 11-amino acid repeats (column 5, line 60-column 6, line 26, Figure 3c) and suggests BSSL polypeptides wherein at least one of such repeats is deleted (Abstract; column 13, line 9- column 14, line 18). Tang et al. also teaches that baby formula supplemented with BSSL is advantageous to improve digestion in infants (column 1, lines 29-44). Tang et al. does not teach a DNA construct wherein the methanol oxidase promoter of *Pichia pastoris* is linked to the polynucleotide encoding the signal peptide and the BSSL. Yamada et al. teaches the successful production of human gastric cathepsin E (Abstract) with *P. pastoris* GS115 (page 281, column 1, lines 2-3) transformed with a vector comprising the cDNA encoding cathepsin E is under the control of the *P. pastoris* methanol-induced alcohol oxidase gene promoter (methanol induced promoter; page 281, column 1, lines 18-column 2, line 17). Furthermore, Yamada et al. teaches that the human protein was secreted by *P. pastoris* GS115 and that its secretion was directed by its own native

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signal peptide (Abstract). Yamada et al. does not teach expression of human BSSL with the *P. pastoris* expression system.

Claims 1, 5, 6 are drawn to a DNA construct which comprises a nucleic acid encoding a BSSL according to SEQ ID NO: 3 or 4 or 90-95% sequence homologs, a nucleic acid encoding a signal peptide, and the methanol oxidase promoter of *P. pastoris*. Claim 2 adds the limitation that the signal sequence is identical to amino acids -20 to -1 of SEQ ID NO: 2. Claim 4 is drawn to the subject matter of claim 1 with the added limitation that the BSSL polypeptide has at least one 11-amino acid repeat deleted. Claims 7-8 are directed to vectors comprising the DNA construct of claim 1 and claims 10-12 are drawn to *Pichia*, *Pichia pastoris* or *P. pastoris* GS115 comprising such vectors. Claim 14 is directed to a method of producing the BSSL polypeptide of claim 1 with *Pichia* cells transformed with the vector of claim 7.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to construct a vector as taught by Yamada et al. with the polynucleotides of Tang et al., transform *P. pastoris* GS115 as taught by Yamada et al. with such vector, and produce BSSL. A person of ordinary skill in the art is motivated to construct the vector of Yamada et al. with the polynucleotides of Tang et al., transform *P. pastoris* GS115 and use the transformed *P. pastoris* cell for the benefit of producing large amounts of the BSSL to further characterize the protein or to use in baby formula as taught by Tang et al. One of ordinary skill in the art has a reasonable expectation of success at making the vector, transforming *P. pastoris* GS115 and producing BSSL from such transformed host cell since Yamada et al. teaches the successful production of a human protein wherein the human protein is secreted using its native signal peptide by cultivating *P. pastoris* GS115 transformed with a vector which is under control of the methanol-

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induced alcohol oxidase promoter of *P. pastoris*. Therefore, the invention as a whole would have been prima facie obvious to a person of ordinary skill in the art at the time the invention was made.

12. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tang et al. (U.S. Patent No. 5,200,183, 1993; cited in previous Office Actions) in view of Yamada et al. (Biochimica et Biophysica Acta 1206: 279-285, 1994) as applied to claims 1-2, 4-8, 10-12, 14 above, and further in view of Martinez et al. (EP 0-438-200 A1, 1991; cited in previous Office Actions). The teachings of Tang et al. and Yamada et al. have been discussed above. Neither Tang et al. nor Yamada et al. teach a vector for the expression of BSSL in *P. pastoris* wherein the signal peptide is that of *S. cerevisiae* invertase. Martinez et al. teaches the expression of human epidermal growth factor by cultivating *P. pastoris* transformed with a vector which comprises the cDNA encoding the human epidermal growth factor, the nucleic acid encoding the signal peptide of the sucrose invertase gene of *S. cerevisiae* (SUC2) and the methanol-induced promoter of the alcohol oxidase gene (page 4, lines 11-30). Martinez et al. does not teach the expression of BSSL.

Claim 3 is directed to the DNA construct of claim 1 as described above with the added limitation that the signal peptide used should be that of *S. cerevisiae* invertase. Claim 14 is drawn to a method of producing a human BSSL with *Pichia* host cells transformed with a vector comprising the DNA construct of claim 3.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to construct the vector of Tang et al. and Yamada et al. as described above, with the

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nucleic acid encoding the signal peptide of *S. cerevisiae* as taught by Martinez et al., transform a *Pichia* host cell as taught by Martinez et al. and produce BSSL. A person of ordinary skill in the art is motivated to construct the vector of Tang et al. and Yamada et al. with the nucleic acid encoding the signal peptide of Martinez et al., transform a *P. pastoris* host cell and cultivate the transformed *P. pastoris* cell for the benefit of producing large amounts of secreted BSSL which can be directly purified from the culture medium to further characterize the protein or to use in baby formula as taught by Tang et al. One of ordinary skill in the art has a reasonable expectation of success at making the vector, transforming a *P. pastoris* cell and producing BSSL from such transformed host cell since Martinez et al. teaches the successful production of a human protein wherein the human protein is secreted using the signal peptide of *S. cerevisiae* sucrose invertase by cultivating *P. pastoris* transformed with a vector which is under control of the methanol-induced alcohol oxidase promoter of *P. pastoris*. Therefore, the invention as a whole would have been *prima facie* obvious to a person of ordinary skill in the art at the time the invention was made.

### ***Double Patenting***

13. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

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Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

14. Claims 1-2, 4-8, 10-12, 14 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 5827683 (common assignee ASTRA AKTIEBOLAG) in view of Yamada et al. (Biochimica et Biophysica Acta 1206: 279-285, 1994).

Claim 1 of U.S. Patent No. 5827683 is directed to a polynucleotide encoding a BSSL polypeptide wherein said polypeptide has at least one amino acid deleted from the region corresponding to amino acids 536-722 of SEQ ID NO: 3. U.S. Patent No. 5827683 discloses a human bile salt-stimulated lipase (BSSL) polypeptide (SEQ ID NO: 3) which is 100% sequence identical to that of SEQ ID NO: 3 of the instant application and its corresponding polynucleotide as well as a BSSL polypeptide comprising the signal peptide (SEQ ID NO: 2) which is that of amino acids -20 to -1 of SEQ ID NO: 2 of the instant application. Also, U.S. Patent No. 5827683 discloses several BSSL polypeptides wherein at least one of the 11- amino acid repeats of the polypeptide of SEQ ID NO: 3 is deleted since amino acids 536-722 of SEQ ID NO: 3 comprise all 16 11-amino acid repeats. U.S. Patent No. 5827683 does not teach a DNA construct wherein the methanol oxidase promoter of *Pichia pastoris* is linked to the polynucleotide encoding the signal peptide and the BSSL. Yamada et al. teaches the successful production of human gastric cathepsin E (Abstract) with *P. pastoris* GS115 (page 281, column 1, lines 2-3) transformed with a vector comprising the cDNA encoding cathepsin E is under the control of the *P. pastoris* methanol-induced alcohol oxidase gene promoter (methanol induced promoter; page 281, column 1, lines 18-column 2, line 17). Furthermore, Yamada et al. teaches that the human

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protein was secreted by *P. pastoris* GS115 and that its secretion was directed by its own native signal peptide (Abstract). Yamada et al. does not teach expression of human BSSL with the *P. pastoris* expression system.

Claims 1, 5, 6 are drawn to a DNA construct which comprises a nucleic acid encoding a BSSL according to SEQ ID NO: 3 or 4 or 90-95% sequence homologs, a nucleic acid encoding a signal peptide, and the methanol oxidase promoter of *P. pastoris*. Claim 2 adds the limitation that the signal sequence is identical to amino acids -20 to -1 of SEQ ID NO: 2. Claim 4 is drawn to the subject matter of claim 1 with the added limitation that the BSSL polypeptide has at least one 11-amino acid repeat deleted. Claims 7-8 are directed to vectors comprising the DNA construct of claim 1 and claims 10-12 are drawn to *Pichia*, *Pichia pastoris* or *P. Pastoris* GS115 comprising such vectors. Claim 14 is directed to a method of producing the BSSL polypeptide of claim 1 with *Pichia* cells transformed with the vector of claim 7.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to construct a vector as taught by Yamada et al. with the polynucleotides of claim 1 of U.S. Patent No. 5827683, transform *P. pastoris* GS115 as taught by Yamada et al. with such vector, and produce BSSL. A person of ordinary skill in the art is motivated to construct the vector of Yamada et al. with the polynucleotides of claim 1 of U.S. Patent No. 5827683, transform *P. pastoris* GS115 and use the transformed *P. pastoris* cell for the benefit of producing large amounts of secreted BSSL which can be directly purified from the culture medium to further characterize the protein. One of ordinary skill in the art has a reasonable expectation of success at making the vector, transforming *P. pastoris* GS115 and producing BSSL from such transformed host cell since Yamada et al. teaches the successful production of a human protein

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wherein the human protein is secreted using its native signal peptide by cultivating *P. pastoris* GS115 transformed with a vector which is under control of the methanol-induced alcohol oxidase promoter of *P. pastoris*. Therefore, the invention as a whole would have been *prima facie* obvious to a person of ordinary skill in the art at the time the invention was made.

15. Claim 3 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 5827683 in view of Yamada et al. (*Biochimica et Biophysica Acta* 1206: 279-285, 1994) as applied to claims 1-2, 4-8, 10-12, 14 and further in view of Martinez et al. (EP 0-438-200 A1, 1991; cited in previous Office Actions).

Claim 1 of U.S. Patent No. 5827683 is directed to a polynucleotide encoding a BSSL polypeptide wherein said polypeptide has at least one amino acid deleted from the region corresponding to amino acids 536-722 of SEQ ID NO: 3. U.S. Patent No. 5827683 discloses a human bile salt-stimulated lipase (BSSL) polypeptide (SEQ ID NO: 3) which is 100% sequence identical to that of SEQ ID NO: 3 of the instant application and its corresponding polynucleotide as well as a BSSL polypeptide comprising the signal peptide (SEQ ID NO: 2) which is that of amino acids -20 to -1 of SEQ ID NO: 2 of the instant application. Also, U.S. Patent No. 5827683 discloses several BSSL polypeptides wherein at least one of the 11- amino acid repeats of the polypeptide of SEQ ID NO: 3 is deleted since amino acids 536-722 of SEQ ID NO: 3 comprise all 16 11-amino acid repeats. U.S. Patent No. 5827683 does not teach a DNA construct wherein the methanol oxidase promoter of *Pichia pastoris* is linked to the polynucleotide encoding full length BSSL (including its signal peptide) or the signal peptide of *S. cerevisiae* invertase.

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Claim 3 is directed to the DNA construct of claim 1 as described above with the added limitation that the signal peptide used should be that of *S. cerevisiae* invertase. Claim 14 is drawn to a method of producing a human BSSL with *Pichia* host cells transformed with a vector comprising the DNA construct of claim 3.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to construct the vector of U.S. Patent No. 5827683 and Yamada et al. as described above, with the nucleic acid encoding the signal peptide of *S. cerevisiae* as taught by Martinez et al., transform a *Pichia* host cell as taught by Martinez et al. and produce BSSL. A person of ordinary skill in the art is motivated to construct the vector of U.S. Patent No. 5827683 and Yamada et al. with the nucleic acid encoding the signal peptide of Martinez et al., transform a *P. pastoris* host cell and cultivate the transformed *P. pastoris* cell for the benefit of producing large amounts of secreted BSSL which can be directly purified from the culture medium to further characterize the protein. One of ordinary skill in the art has a reasonable expectation of success at making the vector, transforming a *P. pastoris* cell and producing BSSL from such transformed host cell since Martinez et al. teaches the successful production of a human protein wherein the human protein is secreted using the signal peptide of *S. cerevisiae* sucrose invertase by cultivating *P. pastoris* transformed with a vector which is under control of the methanol-induced alcohol oxidase promoter of *P. pastoris*. Therefore, the invention as a whole would have been prima facie obvious to a person of ordinary skill in the art at the time the invention was made.

### ***Conclusion***

16. No claim is in condition for allowance.

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17. It is noted that if the references cited by the Examiner are too long, only relevant pages will be enclosed with the instant Action.

18. Applicants are requested to submit a clean copy of the pending claims (including amendments, if any) in future written communications to aid in the examination of this application.

19. Certain papers related to this application may be submitted to Art Unit 1652 by facsimile transmission. The FAX number is (703) 308-4556. The faxing of such papers must conform with the notices published in the Official Gazette, 1156 OG 61 (November 16, 1993) and 1157 OG 94 (December 28, 1993) (see 37 CFR 1.6(d)). NOTE: If Applicant submits a paper by FAX, the original copy should be retained by Applicant or Applicant's representative. NO DUPLICATE COPIES SHOULD BE SUBMITTED, so as to avoid the processing of duplicate papers in the Office.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Delia M. Ramirez whose telephone number is (703) 306-0288. The examiner can normally be reached on Monday-Friday from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Ponnathapura Achutamurthy can be reached on (703) 308-3804. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0196.

Delia M. Ramirez, Ph.D.  
Patent Examiner  
Art Unit 1652

DR  
February 12, 2003

